

Scaled data based on original data using

LM-41-14 Approved Method for Photometric Testing Of Indoor Fluorescent Luminaires

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: PORTFOLIO

Report Number: P432669

Luminaire Tested: **LAM4B208R659730DE010x1MW**

Issue Date: 11/23/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P432669  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2008-908-22)  
Test Lab: INNOVATION CENTER (G2)  
Issue Date: 11/23/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: PORTFOLIO  
Catalog Number: LAM4B208R659730DE010x1MW  
Description: PORTFOLIO 4INCH ADJUSTABLE MULTIPLE, 65 DEG TIR OPTIC  
Light Source: HIGH LUMEN LED 97CRI / 3000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1405.7 lumens  
Efficiency: N/A  
Efficacy: 68.2 lumens/watt  
Spacing Criteria (0/90/45): 0.98 / 0.98 / 0.97  
Luminous Opening: Circular (Dia: 0.17' x H: 0')  
CIE Type: Direct

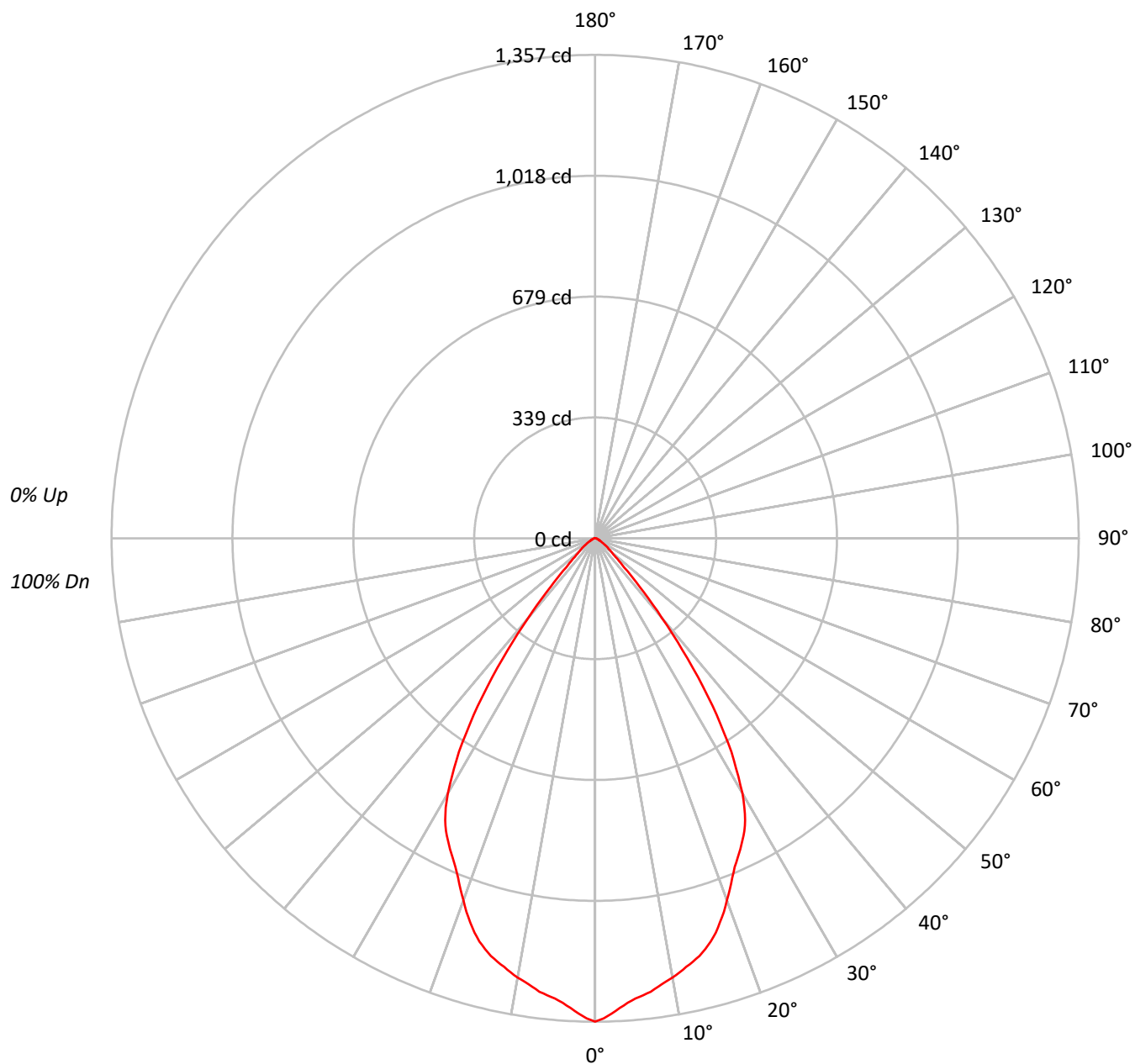
Input Watts (W): 20.6  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Luminous Intensity Polar Plot





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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

|     |     |     |     |     |     |     |     |     |     |     |     |  |     |     |     |  |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|-----|-----|-----|--|-----|
| RF  | 20  |     |     |     | 20  |     |     |     | 20  |     |     |  | 20  |     |     |  | 20  |
| RC  | 80  |     |     |     | 70  |     |     |     | 50  |     |     |  | 30  |     |     |  | 10  |
| RW  | 70  | 50  | 30  | 10  | 70  | 50  | 30  | 10  | 50  | 30  | 10  |  | 50  | 30  | 10  |  | 50  |
| RCR |     |     |     |     |     |     |     |     |     |     |     |  |     |     |     |  |     |
| 0   | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 |  | 106 | 106 | 106 |  | 102 |
| 1   | 113 | 110 | 107 | 105 | 111 | 108 | 106 | 103 | 104 | 102 | 100 |  | 100 | 99  | 97  |  | 97  |
| 2   | 107 | 102 | 98  | 94  | 105 | 100 | 96  | 93  | 97  | 94  | 91  |  | 94  | 91  | 89  |  | 91  |
| 3   | 101 | 94  | 89  | 85  | 99  | 93  | 88  | 84  | 90  | 86  | 83  |  | 88  | 84  | 81  |  | 86  |
| 4   | 96  | 88  | 82  | 77  | 94  | 86  | 81  | 77  | 84  | 80  | 76  |  | 82  | 78  | 75  |  | 80  |
| 5   | 90  | 82  | 75  | 71  | 89  | 81  | 75  | 70  | 79  | 74  | 70  |  | 77  | 73  | 69  |  | 75  |
| 6   | 85  | 76  | 70  | 65  | 84  | 75  | 69  | 65  | 74  | 68  | 64  |  | 72  | 68  | 64  |  | 71  |
| 7   | 81  | 71  | 65  | 60  | 80  | 70  | 64  | 60  | 69  | 64  | 60  |  | 68  | 63  | 59  |  | 67  |
| 8   | 77  | 67  | 60  | 56  | 75  | 66  | 60  | 56  | 65  | 59  | 56  |  | 64  | 59  | 55  |  | 63  |
| 9   | 73  | 63  | 56  | 52  | 72  | 62  | 56  | 52  | 61  | 56  | 52  |  | 60  | 55  | 52  |  | 59  |
| 10  | 69  | 59  | 53  | 49  | 68  | 58  | 53  | 49  | 58  | 52  | 48  |  | 57  | 52  | 48  |  | 56  |

**AVERAGE LUMINANCE (cd/sqm):**

|     |        |
|-----|--------|
|     | 0°     |
| 0°  | 669467 |
| 5°  | 642407 |
| 10° | 627190 |
| 15° | 609672 |
| 20° | 567782 |
| 25° | 524460 |
| 30° | 470805 |
| 35° | 345844 |
| 40° | 186778 |
| 45° | 80310  |
| 50° | 44749  |
| 55° | 31311  |
| 60° | 20130  |
| 65° | 15293  |
| 70° | 12550  |
| 75° | 11056  |
| 80° | 12502  |
| 85° | 8491   |



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 122.6  | 8.7       |
| 10°-20°   | 333.1  | 23.7      |
| 20°-30°   | 441.5  | 31.4      |
| 30°-40°   | 349.6  | 24.9      |
| 40°-50°   | 104.1  | 7.4       |
| 50°-60°   | 33.3   | 2.4       |
| 60°-70°   | 13.3   | 0.9       |
| 70°-80°   | 6.3    | 0.5       |
| 80°-90°   | 1.8    | 0.1       |
| 90°-100°  | 0.0    | 0.0       |
| 100°-110° | 0.0    | 0.0       |
| 110°-120° | 0.0    | 0.0       |
| 120°-130° | 0.0    | 0.0       |
| 130°-140° | 0.0    | 0.0       |
| 140°-150° | 0.0    | 0.0       |
| 150°-160° | 0.0    | 0.0       |
| 160°-170° | 0.0    | 0.0       |
| 170°-180° | 0.0    | 0.0       |
| 0°-30°    | 897.2  | 63.8      |
| 0°-40°    | 1246.8 | 88.7      |
| 0°-60°    | 1384.3 | 98.5      |
| 0°-90°    | 1405.7 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 1405.7 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | Flux |
|-----|------|------|
| 0°  | 1357 |      |
| 5°  | 1297 | 123  |
| 15° | 1194 | 333  |
| 25° | 963  | 442  |
| 35° | 574  | 350  |
| 45° | 115  | 104  |
| 55° | 36   | 33   |
| 65° | 13   | 13   |
| 75° | 6    | 6    |
| 85° | 2    | 2    |
| 90° | 0    |      |



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     |
|-------|--------|
| 0°    | 1356.9 |
| 1°    | 1348.1 |
| 2°    | 1335.0 |
| 3°    | 1320.4 |
| 4°    | 1307.3 |
| 5°    | 1297.1 |
| 6°    | 1289.8 |
| 7°    | 1282.5 |
| 8°    | 1270.9 |
| 9°    | 1260.7 |
| 10°   | 1251.9 |
| 11°   | 1241.7 |
| 12°   | 1230.1 |
| 13°   | 1219.9 |
| 14°   | 1208.2 |
| 15°   | 1193.6 |
| 16°   | 1177.6 |
| 17°   | 1157.2 |
| 18°   | 1133.9 |
| 19°   | 1109.1 |
| 20°   | 1081.4 |
| 21°   | 1055.2 |
| 22°   | 1027.5 |
| 23°   | 1002.7 |
| 24°   | 982.3  |
| 25°   | 963.4  |
| 26°   | 943.0  |
| 27°   | 922.5  |
| 28°   | 896.3  |
| 29°   | 864.3  |
| 30°   | 826.4  |
| 32.5° | 711.2  |
| 35°   | 574.2  |
| 37.5° | 425.6  |
| 40°   | 290.0  |
| 42.5° | 183.6  |
| 45°   | 115.1  |
| 47.5° | 77.2   |
| 50°   | 58.3   |
| 52.5° | 46.6   |
| 55°   | 36.4   |
| 57.5° | 27.7   |
| 60°   | 20.4   |



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CANDELA DISTRIBUTION (continued):

|       | 0°   |
|-------|------|
| 67.5° | 10.2 |
| 70°   | 8.7  |
| 72.5° | 7.3  |
| 75°   | 5.8  |
| 77.5° | 4.4  |
| 80°   | 4.4  |
| 82.5° | 2.9  |
| 85°   | 1.5  |
| 87.5° | 0.0  |
| 90°   | 0.0  |



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— 0°-180°







|       |  |      |
|-------|--|------|
| 62.5° |  | 16.0 |
| 65°   |  | 13.1 |



(END OF REPORT)